Amendments to the Claims:

Please cancel claims 1 to 13 as presented in the underlying International Application No. PCT/EP2003/010510 without prejudice.

Please add new claims 14 to 26 as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 13 (cancelled).

Claim 14 (new):   A method for automatically determining a correction period of time (ΔVLZ_opt) for correcting an actual lead time for delivery of an upstream product (V) which is manufactured with an actual lead time (VLZ_actual) by a delivery unit of a manufacturing network, wherein a quantity of the upstream product (V) to be completed in each case by the delivery unit to cover demand of an end user of the manufacturing network being determined for multiple points in time and stored in the form of a setpoint delivery curve, the method comprising the steps of:

for multiple points in time, determining and storing, in the form of an inventory curve, a quantity of the upstream product (V) completed by the delivery unit but not yet used by a downstream delivery unit;

determining the correction period of time (ΔVLZ_opt) by a selection from a quantity of possible periods of time (ΔVLZ),

calculating, for each possible period of time, a simulated inventory curve, for each possible period of time using the setpoint delivery curve and the inventory curve,

the simulated inventory curve indicating for multiple points in time:

a quantity of upstream product (V) that would have been completed by the delivery unit at a particular point in time and not yet used by a downstream delivery unit,

if the lead time required by the delivery unit for the upstream product (V) had been altered by the possible period of time in comparison with the actual lead time (VLZ_actual), and

selecting as the correction period of time (ΔVLZ_opt) the period of time of the possible periods of time resulting in a simulated inventory curve that is optimal with respect to an optimization criterion (σ) based on the simulated inventory curves.

Claim 15 (new):   The method of claim 14, comprising the further steps of:

determining an actual lead time (VLZ_actual) for the upstream product (V), and

determining a setpoint lead time (VLZ_opt) for the upstream product (V) as the sum of the actual lead time (VLZ_actual) and the correction period of time (ΔVLZ_opt).

Claim 16 (new):   The method of claim 14, wherein the optimization criterion is minimizing the scattering in the simulation inventory curves.

Claim 17 (new):   The method of claim 14, wherein the step of determining the completed but not yet used quantities of the upstream product (V), is carried out by determining and adding up the inventories of the upstream product (V) in an output buffer of the delivery unit the inventories in transit to the downstream delivery units and the inventories in an input buffer of the downstream delivery unit are determined and added up.

Claim 18 (new):   The method of claim 14 wherein the step of determining the quantity of the upstream product (V) needed by the end user (30), is carried out by determining a quantity of at least one intermediate product (Z) for the manufacture of which the upstream product (V) is used and which is delivered by another delivery unit of the manufacturing network directly to the end user, and using a parts list including the intermediate product (Z) and the upstream product (V).

Claim 19 (new):   The method of claim 14, wherein the multiple points in time for the setpoint delivery curve are multiple successive days from a

first period of time that has been defined,

the multiple points in time for the inventory curve are multiple successive days from the first or a second period of time that has been defined, and

both periods of time are each at least five times as long as the maximum period of time between the occurrence and elimination of a delivery restriction at the delivery unit manufacturing the upstream product (V).

Claim 20 (new):   The method of claim 14, comprising the further steps of:

determining the quantity of the upstream product (V) required by the end user and storing the quantity in the form of an end user demand curve for the upstream product (V),

determining an actual lead time (VLZ_actual) for the upstream product, and

determining the setpoint delivery curve by shifting the end user demand curve along the time axis by the actual lead time (VLZ_actual).

Claim 21 (new):   The method of claim 20, comprising the further steps of:

determining a quantity of an intermediate product (Z) required by the end user (30), for the manufacture of which the upstream product (V) is used, and storing the quantity in the form of an end user demand curve for the intermediate product (Z),

using a parts list, determining the number of units of the upstream product (V) needed for the manufacture of one unit of an intermediate product (Z), and

determining an end user demand curve for the upstream product as a function of the end user demand curve for the intermediate product and the parts list.

Claim 22 (new):   The method of claim 14,

wherein the upstream product is fabricated in lots, each including a multiple of a basic quantity, and comprising the further step of:

for each possible period of time, calculating the effects of lot fabrication as a function of the simulated inventory curve for calculating a simulated inventory curve and a corrected simulated inventory curve, and wherein the optimization criterion (σ) is based on the corrected simulated inventory curve.

Claim 23 (new):   The method of claim 22, as recited in Claim 22, comprising the further steps of:

in extrapolating the effects of lot fabrication, analyzing the simulated inventory curve to determine the points in time (LFZ [1], LFZ [2], ...) at which a lot has been completed, and for a point in time between two lot completion points in time (LFZ [1], LFZ [2], ...), the values of the setpoint delivery curve for all subsequent points in time until the last point in time before the next lot completion point in time are subtracted from the value of the simulated inventory curve.

Claim 24 (new):   A device for performing the method for automatically determining a correction period of time (ΔVLZ_opt) for correcting an actual lead time for delivery of an upstream product (V) which is manufactured with an actual lead time (VLZ_actual) by a delivery unit of a manufacturing network, wherein a quantity of the upstream product (V) to be completed in each case by the delivery unit to cover demand of an end user of the manufacturing network being determined for multiple points in time and stored in the form of a setpoint delivery curve, the device comprising:

an apparatus for determining and storing an inventory curve,

an apparatus for determining simulated inventory curves,

and an apparatus for determining the correction period of time (ΔVLZ_opt) by selection of the optimum period of time (ΔVLZ_opt) according to an optimization criterion (σ) based on the simulated inventory curves from the quantity of possible periods of time (ΔVLZ).

Claim 25 (new):   A computer program product arranged and configured to be loaded into an internal memory of a computer and which includes software segments for implementing, when the product is running on the computer, a method for automatically determining a correction period of time (ΔVLZ_opt) for correcting an actual lead time for delivery of an upstream product (V) which is manufactured with an actual lead time (VLZ_actual) by a delivery unit of a manufacturing network, wherein a quantity of the upstream product (V) to be completed in each case by the delivery unit to cover demand of an end user of the manufacturing network being determined for multiple points in time and stored in the form of a setpoint delivery curve, the method comprising the steps of:

for multiple points in time, determining and storing, in the form of an inventory curve, a quantity of the upstream product (V) completed by the delivery unit but not yet used by a downstream delivery unit;

determining the correction period of time (ΔVLZ_opt) by a selection from a quantity of possible periods of time (ΔVLZ),

calculating, for each possible period of time, a simulated inventory curve, for each possible period of time using the setpoint delivery curve and the inventory curve,
the simulated inventory curve indicating for multiple points in time:
a quantity of upstream product (V) that would have been completed by the delivery unit at a particular point in time and not yet used by a downstream delivery unit,
if the lead time required by the delivery unit for the upstream product (V) had been altered by the possible period of time in comparison with the actual lead time (VLZ_actual), and

selecting as the correction period of time (ΔVLZ_opt) the period of time of the possible periods of time resulting in a simulated inventory curve that is optimal with respect to an optimization criterion (σ) based on the simulated inventory curves.

Claim 26 (new): A computer program product stored on a computer-readable medium and including a computer readable program arranged and configured to cause a computer to execute a method for automatically determining a correction period of time (ΔVLZ_opt) for correcting an actual lead time for delivery of an upstream product (V) which is manufactured with an actual lead time (VLZ_actual) by a delivery unit of a manufacturing network, wherein a quantity of the upstream product (V) to be completed in each case by the delivery unit to cover demand of an end user of the manufacturing network being determined for multiple points in time and stored in the form of a setpoint delivery curve, the method comprising the steps of:
for multiple points in time, determining and storing, in the form of an inventory curve, a quantity of the upstream product (V) completed by the delivery unit but not yet used by a downstream delivery unit;

determining the correction period of time (ΔVLZ_opt) by a selection from a quantity of possible

periods of time (ΔVLZ),

calculating, for each possible period of time, a simulated inventory curve, for each possible period of time using the setpoint delivery curve and the inventory curve,

the simulated inventory curve indicating for multiple points in time:

a quantity of upstream product (V) that would have been completed by the delivery unit at a particular point in time and not yet used by a downstream delivery unit,

if the lead time required by the delivery unit for the upstream product (V) had been altered by the possible period of time in comparison with the actual lead time (VLZ_actual), and

selecting as the correction period of time (ΔVLZ_opt) the period of time of the possible periods of time resulting in a simulated inventory curve that is optimal with respect to an optimization criterion (σ) based on the simulated inventory curves.